

TRACKING COMMUNICATION FOR DETERMINING DEVICE STATES

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5

ABSTRACT OF THE DISCLOSURE

A system and method for tracking communication for determining device states. Communication between devices is observed and a respective state of at least one device is inferred. The inference is formed without directly communicating with the device. Various
10 states of the devices include unknown, used, unfulfilled, virtual, omitted, and automatic. The respective state of a device is unknown when the observation shows that the device fails to respond to communication. The respective state of the device is unfulfilled when an ARP request comprising a destination address for the device is observed, and the device does not
15 respond to the ARP request prior to expiration of a time limit. The respective state of a device is determined to be virtual when the observation shows that the device received a packet when its respective state was unfulfilled, and the device did not send a reply to the packet within a time limit.